Efficient Appraisals

S. Wayne Sherer

Senior Technical Associate for Process Improvement

Fire Control & Software Engineering Division

U.S. Army TACOM-ARDEC

Topics

* Complete preparation
* Class "A" and Class "B" schedules
* Maintaining consensus
* Using an experienced team
* Using a "true" TEAM with defined roles
* Tagged questions
* Encoding observations
* Timing results

Key Issues for Efficiency - 1

- Complete preparation – before onsite period
  - Develop Appraisal Plan
  - Determine team members
  - Assign roles
  - Train team members (by role)
  - Determine interviews
  - Prepare questions
  - Assign questions to interviews
  - Setup support tools
  - Coordinate with sponsor and site
  - Etc.

Schedule – week one

	Day 1	Day 2	Day 3	Day 4
	0830 Opening Briefing	0830 Interview 3	0830 Interview 6	0800 Interview 9
	1000 Team Training	1000 Team Meeting	1000 Team Meeting	1000 Interview 10
	1200 Lunch	1200 Lunch	1200 Lunch	1200 Lunch
	1300 Interview 1	1300 Interview 4	1300 Interview 7	1300 Interview 11
	1500 Interview 2	1500 Interview 5	1500 Interview 8	1500 Data review
	1700 Document Review & Data Consolidation	1700 Document Review & Data Consolidation	1700 Document Review & Data Consolidation	1600 Document Review & Data Consolidation

Items highlighted in red are not included in the Class "B" appraisals

Schedule – week two

Day 5	Day 6	Day 7	Day 8
0900 Interview 12	0800 Follow-up Interviews	0900 Draft Findings Briefing 1	0800 Final Findings Review
1100 Team Meeting	1000 Follow-up Interviews	1000 Draft Findings Briefing 2	1000 Executive Meeting
1200 Lunch	1200 Lunch	1100 Draft Findings Briefing 3	1100 Final Findings Briefing
1300 Interview 13	1300 Data Review	1200 Lunch	1200 Lunch
1500 Interview 14	1430 Draft Findings Preparation	1300 Final ~~Findings~~ Ratings Preparation	
1700 Document Review & Data Consolidation	1630 Findings Review	1500 Prepare CMMI & Sponsor Reports	

Items highlighted in red are not included in the Class "B" appraisals

Key Issues for Efficiency - 2

- Maintaining consensus
  - Consensus is vital to the process
  - Keeping the team together for each decision (no mini-teams) reduces conflict and rework
- Using an experienced team
  - All team members either had experience or received assessment or evaluation training
  - As a result only need training on method tailoring
  - Building and drawing from a core group provides additional advantages over time

Key Issues for Efficiency - 3

- ☀ Using a "true" team with defined roles
  - ❋ Schedule manager
  - ❋ Timekeeper
  - ❋ Document control
  - ❋ Draft observation preparation
  - ❋ Observation/findings review
  - ❋ Process monitor
  - ❋ Tool monitor
  - ❋ Team lead(s)

Key Issues for Efficiency - 4

Tagged Questions

* Speed recording of observations
* For example:

ID#	TAG	Question
PP-9	SP 2.6	WYPD how you identify and involve stakeholders in the project?

Encoding Observations

- By source
  - D = Documentation
  - P = Process Practitioner
  - M = Management
  - Q = Maturity Questionnaire
- Color code to identify interview (interview 3 = orange)
- Subscript to identify project (Paladin = P)

D_P

Encoding Form (Wall Charts)

Source	Rating	Notes	Requirements Management
			SG 1. **Manage Requirements - Requirements are managed and inconsistencies with project plans and work products are identified.** [SP 1.1, SP 1.2, SP 1.3, SP 1.4, SP 1.5]
		G	GG 2. **Institutionalize a Managed Process - The process is institutionalized as a managed process.** [GP 2.1, GP 2.2, GP 2.3, GP 2.4, GP 2.5, GP 2.6, GP 2.7, GP 2.8, GP 2.9, GP 2.10]
			SP 1.1-1 Obtain an Understanding of Requirements - Develop an understanding with the requirements providers on the meaning of the requirements.
			SP 1.2-2 Obtain Commitment to Requirements - Obtain commitment to the requirements from the project participants.
			SP 1.3-1 Manage Requirements Changes - Manage changes to the requirements as they evolve during the project.
			SP 1.4-2 Maintain Bi-directional Traceability of Requirements - Maintain bi-directional traceability among the requirements and the project plans and work products.
			SP 1.5-1 Identify Inconsistencies between Project Work and Requirements - Identify inconsistencies between the project plans and work products and the requirements.

Timing results for Class "A"

Appraisal	Projects	Practices	Time	Time/Practice
Mar 00	4	120	52 hr	26 min
Jan 01	4	160	88.4 hr	33.1 min

Mar 00 included all of CMMI-SE/SW/A level 2 & part of level 3

Jan 01 included all of CMMI-SE/SW/A levels 2 & 3

Timing results for Class "B"

Appraisal	Projects	Practices	Time	Time/Practice
Sept 00	8	161	37 hr	13.79 min
Aug 01	9	179	41.2 hr	13.82 min

Sept 00 included all of CMMI-SE/SW/A levels 2 & 3

Aug 01 included all of CMMI-SE/SW/A levels 2, 3, & 4

Summary

- 100 hours, 4 projects, 2 weeks is achievable with proper preparation
- Attention to the appraisal process, team, and tools can improve efficiency

- In other words, manage your appraisals the same way CMMI wants you manage your projects

Backup slides

Scope for Mar 00 Appraisal

- All of CMMI-SE/SW/A (staged) level 2
- CMMI-SE/SW/A (staged) level 3
  - Complete coverage: PV(Ver), Val, SPM(ISM), OT
  - Partial coverage: CPR(RD), TS, PI, OPF, OPD, IPM, RSKM
  - Not included: DAR

Coverage Examples

- Fully Implemented –

  D_{ABCD}, Q_{ABCD}, M, P_{AB}, P_{BCD}, P_{AD}

- Largely Implemented –

  D_{ACD}, Q_{ABCD}, M, P_A, P_{CD}, P_{AD}

- Partially Implemented –

  D_{AC}, Q_C, M, P_A, P_C , $\not{P}_B$, $\not{P}_D$

- Not Implemented –

  $\not{D}_{AB}$, Q_{CD}, $\not{P}_{AB}$, $\not{P}_{CD}$

- ? Implemented –

  D_{ABCD}, Q_{ABCD}, M